
LEARNER-CENTERED TEACHING**Prof. Nikolaos Tzenios*¹**^{*1}Public Health And Medical Research, Charisma University, Grace Bay, Turks And Caicos Islands.^{*1}Doctor Of Criminal Law Candida E, Northcentral University, USA.^{*1}Doctor Of Health Sciences Candidate, MCPHS University, Boston, Massachusetts, USA.DOI : <https://www.doi.org/10.56726/IRJMETS32262>

ABSTRACT

The learner-centered teaching (LCT) approach, also known as student-centered or child-centered teaching, is characterized by student participation and a focus on tailoring teaching methodologies to individual student needs, learning styles, skills, and goals. It involves clear skill instruction, reflection on learning and how it is achieved, student control over learning, and collaboration within the classroom community. The benefits of LCT include increased student engagement, improved learning outcomes, and the development of lifelong learning skills. However, it can also face barriers, including the need for extensive planning and preparation, the potential for unequal participation among students, and the need for teacher training and support. Technology can enhance LCT by providing access to a wide range of learning materials and resources, facilitating communication and collaboration, and allowing for personalized and flexible learning. Interprofessional education can also be integrated into LCT by promoting collaboration and teamwork among students from different professional backgrounds. In a clinical context, LCT can be applied by involving students in patient care and decision-making, providing experiential learning and reflection opportunities, and using simulation and other interactive teaching methods.

I. INTRODUCTION

Learner-centered teaching approach can be traced back to the 1800s. During this period, educators began seeking alternatives to the traditional teaching model; however, LCT was shaped in the 1970s (Darsih, 2018; Kumar, 2020). Since the 1970s, different terms have been used to describe LCT, including child-centered pedagogy, learner-centered approach, and student-centered teaching. LCT is characterized by students' participation, leading to increased engagement and improved learning outcomes. Educators, in the LCT approach, provide the most suitable teaching methodologies for students after assessing students' learning styles, speed, skills, needs, and learning goals (Kumar, 2020). LCT holistically develops students' learning experiences since it engages them in real-life issues. Incorporating inter-professional education into LCT is crucial because it equips learners with such competencies as collaboration and teamwork, which are indispensable in their careers. Apart from this, technological advancements and restructuring of students' rotations can be used to improve learning outcomes in an LCT environment. Therefore, this paper will deliberate the benefits and barriers of learner-centered teaching, highlight technological resources that enhance students' learning process, integrate interprofessional education into an LCT environment, and discuss LCT that can be applied in the clinical context.

II. CHARACTERISTICS OF LEARNER-CENTERED TEACHING

LCT has five dominant characteristics. First, it allows students to participate in the "hard, messy work of learning" (Matmuratova, 2020, p. 1). In the traditional teaching approach, the teacher does a substantial part of the learning work for the student. For instance, teachers ask questions, add details to answers given by students, organize content, craft examples, and do the preview and the review (Matmuratova, 2020). However, in the LCT approach, students are engaged in all these learning tasks; thus, they can develop learning skills by practicing them. Second, LCT includes clear skill instruction. In other words, educators teach learners such skills as problem-solving, critical thinking, evaluating evidence, analyzing arguments, and generating hypotheses. These skills are important to master the learning material and are required if the students are lifelong learners. Third, LCT encourages learners to reflect on their learning and how they learn it. In this approach, teachers use casual conversation to ask students what they are learning and challenge learners' assumptions about learning. The objective of learner-centered teachers is to make students aware of what kind of learners they are and evoke the desire to develop learning skills. Fourth, LCT gives students certain control

over their learning, motivating them. In the conventional approach, students are not involved in designing learning methodologies or goals; therefore, their motivation to learn dips and becomes dependent (Matmuratova, 2020). In LCT, instructors share power with the learners in ethical ways. This implies that students are given autonomy in choosing assignments and the deadlines for submission and could be engaged in creating assessment criteria. Fifth, LCT encourages collaboration since it views classrooms as communities of students. Learner-centered teachers believe that students can learn from each other while the teacher can also learn from the students. In light of this, instructors develop learning structures that support shared commitments to learning.

III. BENEFITS AND BARRIERS OF LEARNER-CENTERED TEACHING

The first benefit of LCT is that it boosts students' engagement. Student-centered learning leverages a learner's curiosity and develops it into a strong interest in a subject. Since students are not overly supervised, they can take the lead, dig deeper, and engage in discussions and disputes, which leads to increased engagement. Students learn more effectively when engaged in learning because LCT nurtures enthusiasm. Second, LCT supports improved memorization. The approach moves the focus from the traditional approach of cramming learning material to showing students real-life content applications. In LCT, there is more practical work than theory, which keeps the students interested and challenges them to seek more knowledge Tzenios, N. (n.d.). Additionally, their ability to retain what has been learned increases since they can relate the new information with the already existing one. Third, LCT equips students with problem-solving skills. A conventional student-centered classroom provides different discussion issues, role-playing, and other challenges that allow learners to develop their skills and creativity. Engaging students with real-life complexities helps them develop critical thinking, a useful skill in their professional careers. Students learn to innovate and find smart solutions to everyday problems. Fourth, LCT develops students' ability to cooperate and work in teams. The approach implies many tasks and assignments that have to be done in groups, thereby developing students' ability to collaborate. Fifth, LCT adjusts to individual students' learning goals. Thus, the system builds a course around learners' abilities, interests, and needs. Instructors can tailor reading materials, assessment methods, and assignments to suit the needs of individual students.

Despite LCT's numerous benefits, it has several limitations. First, this approach depends on the teacher's ability to curate materials suitable to the learners' known needs. Should the teacher fail to design helpful materials, then LCT becomes ineffective. Additionally, creating individualized learning materials is time- and resource-consuming. Second, instructors find it difficult to redress the balance between urgent needs and student interests. Third, LCT is expensive for learners since it requires substantial resources and human labor.

IV. TECHNOLOGY RESOURCES TO FACILITATE STUDENT LEARNING

Technology is vital in improving learner engagement and active learning Tzenios, N. (2022b). Online practice problem banks and peer-assisted learning programs are examples of technological tools that can be leveraged to assist student learning. Peer-assisted learning (PAL) is a kind of education in which students from the same program help each other to learn even if they are not at the same level (Guraya & Abdalla, 2020). A study by Jauregui et al. (2018) at the University of Washington found that PAL is a beneficial approach since it resulted in more engagement and better retention of information. At the University of Washington, a PAL instruction design using iPads was used to improve medical students' learning in simulation case-based student-led training. The research found that students who used the PAL simulations had greater satisfaction in learning and said that PAL simulations were better than the typical teacher-led simulations (Jauregui et al., 2018). Apart from this, online question banks are one of the most popular resources used by 82% of medical students (Wynter et al., 2019). Question banks can be used to internalize new information as a practice test structure, boosting test-taking capacities (Wynter et al., 2019). Online question banks give students immediate feedback. Research by Wynnyel et al. (2019) indicates that instant feedback on students' understanding improves their learning and retention. Additionally, question banks help students specify their knowledge gaps that may appear in areas of a subject that students are neglecting.

V. INTEGRATING INTER PROFESSIONAL EDUCATION INTO LEARNER-CENTERED ENVIRONMENTS

Though the learner-centered approach encourages students' autonomy during the learning process, it is important to add an inter-professional approach. Inter-professional education equips the healthcare workforce with such competencies as teamwork and collaboration, which are vital in a professional career (van Diggele et al., 2020). Inter-professional education (IPE) is ensured when learners of two or more professions learn about, from, and with each other, intending to improve collaboration and healthcare outcomes (Liller et al., 2020). IPE allows the healthcare workforce to collaborate to offer holistic solutions to the healthcare needs of a community. One way to incorporate IPE in the LCT learning environment is to have student-run free clinics (SRFCs). In SRFCs, faculty and preceptors work with students from different healthcare disciplines to help underserved populations (Drexler et al., 2019; Rupert et al., 2021). SRFCs can act as an alternative to healthcare programs in medical schools that do not have rotation locations for their learners and have a population that requires care. Thus, integrating IPE into the LCT environment prepares students for the professional world by giving them a platform to sharpen their teamwork, inter-professional relationships, and collaborative practice skills.

VI. A LEARNER-CENTERED TEACHING APPROACH FOR CLINICAL STUDENT ROTATIONS

Clinical rotations last 4-6 weeks, and, in some cases, students may have unfulfilled education needs depending on the patient or clinical situations they face. To ensure that learning needs are met, it is necessary to implement a curriculum to expose every student to critical medical cases relevant to the rotation. An individualized learning plan (ILP) must be crafted at the start of the rotation while it must consider the context of the situated learning and should begin with a targeted needs assessment for every learner to determine the skills that they have already practiced in previous rotations (Merritt et al., 2017). ILP is an efficient tool for preceptors to meet the needs of the learners, increase student satisfaction in the rotations, and improve feedback. Additionally, the curriculum used in the rotations should incorporate a required reading list. The comprehension levels of the students can be checked through open discussions, relevant questions, and feedback sessions. Assessment should be done at the end of every week, while areas that should be evaluated include patient interaction skills, decision-making based on diagnostic tests, physical examination, and note-writing skills (Merritt et al., 2017; Chinai et al., 2018). Performance anxiety that students experience can be tackled by giving feedback in the rotation.

However, ILPs can be hard to implement because of the busy nature of clinical environments Tzenios, N. (2022a). Successful implementation requires students and preceptors to sacrifice time outside the official clinic hours. Though student rotations may not make the learner an expert in the field, the approach allows them to experience every facet of the clinician's duties while simultaneously getting exposed to clinical situations and hands-on learning experiences (Chinai et al., 2018). Effective clinical educators understand how to apply LCT strategies to recognize personal learning gaps, fill them, and offer beneficial feedback to students (Darsih, 2018). Beck Dallaghan et al. (2022) conducted a 16-week study where medical students spent two days a week in clinical rotations with an applied LCT approach. At the end of the study, it was found that clinical rotations improved students' feedback and satisfaction with clinical preceptors.

VII. CONCLUSION

Learner-centered teaching is one of the best learning approaches to prepare the healthcare workforce for the clinical environment since it equips students with skills that enables them to be lifelong learners. LCT has five dominant characteristics: participation, clear skill instruction, reflection, learner autonomy, and collaboration. LCT's benefits include boosting students' engagement, memorization, and problem-solving skills. The limitations of LCT imply its demanding nature on instructors and the expenses involved for students. PAL and online question banks can facilitate learning in the LCT environment. Moreover, IPE can be integrated into the LCT environment to ensure learners' holistic development, as evidenced by SRFCs. Clinical student rotations that employ a learner-centered approach increase students' satisfaction with the learning experience.

VIII. REFERENCES

- [1] Beck Dallaghan, G. L., Lin, X., Melvin, J. K., Golding, J., Steiner, B., & Kulkarni, V. (2022). Maximizing clinical rotation placements for US medical students: Exploring an optimization model. *Medical Education Online*, 27(1). <https://doi.org/10.1080/10872981.2021.2024488>
- [2] Chinai, S., Guth, T., Lovell, E., & Epter, M. (2018). Taking advantage of the teachable moment: A review of learner-centered clinical teaching models. *Western Journal of Emergency Medicine*, 19(1), 28–34. <https://doi.org/10.5811/westjem.2017.8.35277>
- [3] Darsih, E. (2018). Learner-centered teaching: What makes it effective. *Indonesian EFL Journal*, 4(1), 33–42. <https://doi.org/10.25134/iefj.v4i1.796>
- [4] Drexler, R., Fröschle, F., Predel, C., Sturm, B., Ustorf, K., Lehner, L., Janzen, J., Valentin, L., Scheer, T., Lehnert, F., Tadzic, R., Oldhafer, K. J., & Meyer, T. N. (2019). Establishing a student-run free clinic in a major city in Northern Europe: A 1-year experience from Hamburg, Germany. *Journal of Public Health*, 42(4), 793–798. <https://doi.org/10.1093/pubmed/fdz165>
- [5] Guraya, S. Y., & Abdalla, M. E. (2020). Determining the effectiveness of peer-assisted learning in medical education: A systematic review and meta-analysis. *Journal of Taibah University Medical Sciences*, 15(3), 177–184. <https://doi.org/10.1016/j.jtumed.2020.05.002>
- [6] Jauregui, J., Bright, S., Strote, J., & Shandro, J. (2018). A novel approach to medical student peer-assisted learning through case-based simulations. *Western Journal of Emergency Medicine*, 19(1), 193–197. <https://doi.org/10.5811/westjem.2017.10.35319>
- [7] Kumar S. R. (2020). Concepts of learner-centered teaching. *Shanlax International Journal of Education*, 8(3), 45–60. <https://doi.org/10.34293/education.v8i3.2926>
- [8] Liller, K. D., Pruitt, Z., & Burke, S. G. (2020). Interprofessional education: Reaching health professionals with an interactive professional virtual/online event on advocacy and policy. *Frontiers in Public Health*, 8, 1–5. <https://doi.org/10.3389/fpubh.2020.606394>
- [9] Matmuratova, N. A. (2020). Five characteristics of learner-centered teaching. *Chronos Journal*, 3(42). <https://doi.org/10.31618/2658-7556-2020-42-3-7>
- [10] Merritt, C., Gaines, S., Smith, J., & Santen, S. (2017). A novel curriculum to optimize emergency medicine residents' exposure to pediatrics. *Western Journal of Emergency Medicine*, 18(1), 14–19. <https://doi.org/10.5811/westjem.2016.10.31248>
- [11] Rupert, D. D., Alvarez, G. V., Burdge, E. J., Nahvi, R. J., Schell, S. M., & Faustino, F. L. (2021). Student-Run free clinics stand at a critical junction between undergraduate medical education, clinical care, and advocacy. *Academic Medicine*. <https://doi.org/10.1097/acm.0000000000004542>
- [12] Tzenios, N. (2022a). Academic Doctoral Learning Plan. <https://doi.org/10.33774/coe-2022-7twh9>
- [13] Tzenios, N. (2022b). Student-led Learning Theory. <https://doi.org/10.33774/coe-2022-0x2bx>
- [14] Tzenios, N. (n.d.). Interprofessional Program Design Project to improve Nursing students' attitudes toward collaborative practice. Prof. Nikolaos Tzenios 12. Retrieved December 17, 2022, from <https://www.cambridge.org/engage/api-gateway/coe/assets/orp/resource/item/6396153514d92dd7c8aaebc0/original/interprofessional-program-design-project-to-improve-nursing-students-attitudes-toward-collaborative-practice.pdf>
- [15] Van Diggele, C., Roberts, C., Burgess, A., & Mellis, C. (2020). Interprofessional education: Tips for design and implementation. *BMC Medical Education*, 20(455). <https://doi.org/10.1186/s12909-020-02286-z>